

CLAIMS

1. A testing apparatus (100) for radio network data connections which comprises:

at least two radio network (134) terminals (118, 120), and
 5 a host computer (102), which is configured to establish, by means of the terminals (118, 120), simultaneous data connections (106, 108) in accordance with the TCP/IP (Transmission Control Protocol / Internet Protocol) protocol or the UDP/IP (User Datagram Protocol / Internet Protocol) protocol to at least one server (148) connected to the radio network (134) and to measure
 10 each established data connection (106, 108) separately,

characterized in that the host computer (102) is configured to establish each data connection (106, 108) to a different public IP (Internet Protocol) address of the server and to dynamically establish a dedicated unambiguous route for each data connection (106, 108), whereby the data connections (106, 108) to different IP addresses travel along different routes via different terminals (118, 120) and their air interfaces.
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2. A testing apparatus according to claim 1, **characterized** in that the host computer (102) is configured to dynamically establish a dedicated unambiguous route for each data connection (106, 108) by defining a dedicated socket, netmask and gateway for each different IP address in a routing table.
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3. A testing apparatus according to claim 1 or 2, **characterized** in that the host computer (102) is configured to establish the data connections (106, 108) as dial-up connections.
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4. A testing apparatus according to any of the preceding claims, characterized in that the data connections (106, 108) established by the terminal (118, 120) comprise at least one of the following: data connections of one operator implemented by the same data transfer technique, data connections of one operator implemented by different data transfer techniques, data connections of different operators implemented by the same data transfer techniques, data connections of different operators implemented by different data transfer techniques.
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5. A method of testing radio network data connections, comprising:
 establishing (602), by means of radio network terminals, simultaneous data connections in accordance with the TCP/IP (Transmission Control
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Protocol / Internet Protocol) protocol or the UDP/IP (User Datagram Protocol / Internet Protocol) protocol from the host computer to at least one server connected to the radio network;

and measuring (608) each established data connection separately;

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characterized by

establishing (604) each data connection from the host computer to a different public IP (Internet Protocol) address of the server; and

10 dynamically establishing (606) a dedicated unambiguous route for each data connection, whereby the data connections to different IP addresses travel along different routes via different terminals and their air interfaces.

6. A method according to claim 5, **characterized by** dynamically establishing (606) a dedicated unambiguous route for each data connection by defining a dedicated socket, netmask and gateway for each separate IP address in a routing table.

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7. A method according to claim 5 or 6, **characterized by** establishing (602) the data connections as dial-up connections.

20 8. A method according to any of preceding claims 5 to 7, characterized in that the data connections established by the terminal comprise at least one of the following: data connections of one operator implemented by the same data transfer technique, data connections of one operator implemented by different data transfer techniques, data connections of different operators implemented by the same data transfer techniques, data connections of different operators implemented by different data transfer techniques.

25 9. A computer program product, which is installed in a host computer and which encodes a computer process for testing radio network data connections, the computer process comprising:

30 establishing, by means of radio network terminals, simultaneous data connections in accordance with the TCP/IP (Transmission Control Protocol / Internet Protocol) protocol or the UDP/IP (User Datagram Protocol / Internet Protocol) protocol from the host computer to at least one server connected to the radio network; and

measuring each established data connection separately;

35 **characterized by** establishing each data connection from the host computer to a different public IP (Internet Protocol) address of the server; and

dynamically establishing a dedicated unambiguous route for each data connection, whereby the data connections to different IP addresses travel along different routes via different terminals and their air interfaces.

5 10. A computer program product according to claim 9, characterized by dynamically establishing a dedicated unambiguous route for each data connection by defining a dedicated socket, netmask and gateway for each different IP address in a routing table.

11. A computer program product according to claim 9 or 10, characterized in that the data connections are established as dial-up connections.

10 12. A computer program product according to any one of preceding claims 9 to 11, characterized in that the data connections established by the terminal comprise at least one of the following: data connections of one operator implemented by the same data transfer technique, data connections of one operator implemented by different data transfer techniques, data connections of different operators implemented by the same data transfer techniques, data connections of different operators implemented by different data transfer techniques.

13. An arrangement for testing radio network data connections, comprising
20 at least two radio means for establishing wireless data connections to a radio network,

host means for establishing, utilizing the radio means, simultaneous data connections in accordance with the TCP/IP (Transmission Control Protocol / Internet Protocol) protocol or the UDP/IP (User Datagram Protocol / Internet Protocol) protocol to at least one server connected to the data network,
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measuring means for measuring each established data connection separately,

characterized in that the host means establish each data
30 connection to a different public IP (Internet protocol) address of the server and dynamically establish a dedicated unambiguous route for each data connection, whereby data connections to different IP addresses travel along different routes via different radio means and their interfaces.

14. An arrangement according to claim 13, characterized in that the
35 host means dynamically establish a dedicated unambiguous route for each

data connection by defining a dedicated socket, netmask and gateway for each different IP address in a routing table.

5 15. An arrangement according to claim 13 or 14, characterized in that the host means are configured to establish the data connections as dial-up connections.

10 16. An arrangement according to any one of preceding claims 13 to 15, characterized in that the data connections established by the terminal comprise at least one of the following: data connections of one operator implemented by the same data transfer technique, data connections of one operator implemented by different data transfer techniques, data connections of different operators implemented by the same data transfer techniques, data connections of different operators implemented by different data transfer techniques.

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